| L       | Hits | Search Text   | DB                 | Time stamp          |
|---------|------|---|--------------------|---------------------|
| Number  |      |   |                    | -                   |
| 53      | 44   | 375.clas. AND (antenna SAME diversity                                 | USPAT;             | 2004/09/17          |
| 54      |      | SAME computer)  | US-PGPUB           | 08:53               |
| 54      | 0    | 370.clas. AND (antenna SAME diversity SAME computer SAME instruction) | USPAT;<br>US-PGPUB | 2004/09/17          |
| 55      | 2    | 455.clas. AND (antenna SAME diversity                                 | USPAT;             | 2004/09/17          |
|         | _    | SAME computer SAME instruction)                                       | US-PGPUB           | 08:53               |
| 56      | 2    | 375.clas. AND (antenna SAME diversity                                 | USPAT;             | 2004/09/17          |
|         |      | SAME computer SAME instruction)                                       | US-PGPUB           | 08:53               |
| 51      | 45   | 370.clas. AND (antenna SAME diversity                                 | USPAT;             | 2004/09/17          |
| 52      | 89   | SAME computer) 455.clas. AND (antenna SAME diversity                  | US-PGPUB<br>USPAT; | 08:59<br>2004/09/17 |
| 32      |      | SAME computer)  | US-PGPUB           | 09:02               |
| 103     | 2    | 455/101.ccls. AND ((double OR twice OR                                | USPAT;             | 2004/09/17          |
|         |      | two OR greater) WITH Nyquist)   | US-PGPUB           | 09:29               |
| 104     | 2    | 455/132.ccls. AND ((double OR twice OR                                | USPAT;             | 2004/09/17          |
| 105     |      | two OR greater) WITH Nyquist)   | US-PGPUB           | 09:30               |
| 105     | 1    | 455/137.ccls. AND ((double OR twice OR two OR greater) WITH Nyquist)  | USPAT;<br>US-PGPUB | 2004/09/17          |
| 106     | 1    | 455/140.ccls. AND ((double OR twice OR                                | USPAT;             | 2004/09/17          |
|         |      | two OR greater) WITH Nyquist)   | US-PGPUB           | 09:31               |
| 108     | 633  | 375.clas. AND ((double OR twice OR two)                               | USPAT;             | 2004/09/17          |
|         | _    | WITH Nyquist)   | US-PGPUB           | 10:07               |
| 107     | 172  | , ,   | USPAT;             | 2004/09/17          |
| 114     | 141  | WITH Nyquist) 455.clas. AND ((double OR twice OR two)                 | US-PGPUB<br>USPAT; | 10:21               |
| 1 + + 3 | 131  | WITH Nyquist)   | US-PGPUB           | 10:07               |
| 111     | 1    |   | USPAT;             | 2004/09/17          |
|         |      | twice OR two) WITH Nyquist)   | US-PGPUB           | 10:14               |
| 112     | 5    |   | USPAT;             | 2004/09/17          |
| 3.1.2   |      | twice OR two) WITH Nyquist)   | US-PGPUB           | 10:15               |
| 113     | 2    | 455.clas. AND (diversity SAME (double OR twice OR two) WITH Nyquist)  | USPAT;<br>US-PGPUB | 2004/09/17<br>10:16 |
| 127     | 38   | _ · · · · · · · · · · · · · · · · · · ·                               | USPAT;             | 2004/09/17          |
|         |      | (   | US-PGPUB           | 10:30               |
| 130     | 7    | sampling WITH rate WITH greater WITH                                  | USPAT;             | 2004/09/17          |
|         | _    | multiple WITH Nyquist   | US-PGPUB           | 10:30               |
| 131     | 7    | sampling WITH rate WITH greater WITH "x"                              | USPAT;<br>US-PGPUB | 2004/09/17          |
| 132     | 8    | WITH Nyquist<br>  sampling WITH rate WITH greater WITH "n"            | USPAT;             | 2004/09/17          |
|         |      | WITH Nyquist  | US-PGPUB           | 10:33               |
| -       | 1    | 6172970.pn.   | USPAT;             | 2004/09/15          |
|         |      |   | US-PGPUB           | 13:59               |
| -       | 0    | ,                               | USPAT;             | 2004/09/16          |
|         | 0    | multiplex\$ SAME demultiplex\$)) 370/536.ccls. AND ((antenna SAME     | US-PGPUB<br>USPAT; | 2004/09/16          |
|         |      | diversity SAME multiplex\$ SAME                                       | US-PGPUB           | 09:32               |
|         |      | demultiplex\$))   |                    |                     |
| -       | 0    | 7                               | USPAT;             | 2004/09/15          |
|         |      | diversity SAME multiplex\$ SAME                                       | US-PGPUB           | 14:00               |
| _       | 0    | demultiplex\$))<br>  370/539.ccls. AND ((antenna SAME                 | USPAT;             | 2004/09/15          |
|         |      | diversity SAME multiplex\$ SAME                                       | US-PGPUB           | 14:00               |
|         |      | demultiplex\$))   |                    |                     |
| -       | 0    | 370/540.ccls. AND ((antenna SAME                                      | USPAT;             | 2004/09/15          |
|         |      | diversity SAME multiplex\$ SAME                                       | US-PGPUB           | 14:00               |
|         | 1    | demultiplex\$))   | IICDAM.            | 2004/09/15          |
| -       | 1    | 370/537.ccls. AND ((antenna SAME diversity SAME multiplex\$ SAME      | USPAT;<br>US-PGPUB | 2004/09/15          |
|         |      | demultiplex\$))   |                    |                     |
| -       | 1    | 370/539.ccls. AND ((antenna SAME                                      | USPAT;             | 2004/09/15          |
|         |      | <pre>multiplex\$ SAME demultiplex\$))</pre>                           | US-PGPUB           | 14:01               |
| -       | 2    | 370/538.ccls. AND ((antenna SAME                                      | USPAT;             | 2004/09/15          |
| _       | 2    | multiplex\$ SAME demultiplex\$)) 370/537.ccls. AND ((antenna SAME     | US-PGPUB<br>USPAT; | 14:01<br>2004/09/15 |
|         |      | multiplex\$ SAME demultiplex\$))                                      | US-PGPUB           | 14:03               |
| _       | 0    | 370/539.ccls. AND (antenna WITH                                       | USPAT;             | 2004/09/15          |
|         |      | diversity)  | US-PGPUB           | 14:03               |
| -       | 0    | 370/540.ccls. AND (antenna WITH                                       | USPAT;             | 2004/09/15          |
|         | L    | diversity)  | US-PGPUB           | 14:03               |

| -           | 2        | 370/535.ccls. AND ((antenna SAME            | USPAT;      | 2004/09/15  |
|-------------|----------|---|-------------|-------------|
|             |          | diversity SAME multiplex\$ SAME             | US-PGPUB    | 14:05       |
|             |          | demultiplex\$))                             |             |             |
| _           | 7        | 370/536.ccls. AND ((antenna SAME            | USPAT;      | 2004/09/15  |
|             |          | <pre>multiplex\$ SAME demultiplex\$))</pre> | US-PGPUB    | 14:06       |
| _           | 2        | 370/538.ccls. AND (antenna WITH             | USPAT;      | 2004/09/15  |
|             | _        | diversity)                                  | US-PGPUB    | 14:28       |
| _           | 7        | 370/537.ccls. AND (antenna WITH             | USPAT;      | 2004/09/15  |
|             | <b>'</b> | diversity)                                  | US-PGPUB    | 14:30       |
|             | 2        | 370/536.ccls. AND (antenna WITH             | USPAT;      | 2004/09/15  |
|             | "        |   | · ·         |             |
|             | 1 1 5    | diversity)                                  | US-PGPUB    | 14:33       |
| -           | 15       | 1   | USPAT;      | 2004/09/16  |
|             |          | diversity)                                  | US-PGPUB    | 09:32       |
| -           | 0        | 370/536.ccls. AND (beamforming OR (beam     | USPAT;      | 2004/09/15  |
|             |          | ADJ forming))                               | US-PGPUB    | 14:37       |
| -           | 0        | 370/538.ccls. AND (beamforming OR (beam     | USPAT;      | 2004/09/15  |
|             |          | ADJ forming))                               | US-PGPUB    | 14:37       |
| -           | 0        | 370/539.ccls. AND (beamforming OR (beam     | USPAT;      | 2004/09/15  |
|             |          | ADJ forming))                               | US-PGPUB    | 14:37       |
| _           | 0        | 370/540.ccls. AND (beamforming OR (beam     | USPAT;      | 2004/09/15  |
|             |          | ADJ forming))                               | US-PGPUB    | 14:37       |
| -           | 22       | 370/535.ccls. AND ((antenna SAME            | USPAT;      | 2004/09/15  |
|             |          | multiplex\$ SAME demultiplex\$))            | US-PGPUB    | 14:50       |
| -           | 2        | 370/537.ccls. AND (beamforming OR (beam     | USPAT;      | 2004/09/15  |
|             |          | ADJ forming))                               | US-PGPUB    | 14:48       |
| _           | Я        | 370/535.ccls. AND (beamforming OR (beam     | USPAT;      | 2004/09/16  |
|             | l        | ADJ forming))                               | US-PGPUB    | 09:32       |
| _           | 336      |   | USPAT;      | 2004/09/15  |
|             |          | SAME demultiplex\$))                        | US-PGPUB    | 14:51       |
|             | 9        | _ · · · · · · · · · · · · · · · · · · ·     | USPAT       | 2004/09/15  |
| -           | 9        | ( )   | USPAI       |             |
|             |          | "5031193"   "5203024"   "5263180"           |             | 15:49       |
|             |          | "5390166"   "5530926"   "5796777").PN.      | II.a.p.n.m  | 0004/00/15  |
| -           | /        | 6172970.URPN.                               | USPAT       | 2004/09/15  |
|             | _        | <b>.</b>                                    |             | 15:49       |
| -           | 7        | ("5166951"   "5887021"   "6130906"          | USPAT       | 2004/09/15  |
|             |          | "6160803"   "6163566"   "6173008"           |             | 15:55       |
|             |          | "6181733").PN.                              |             | İ           |
| -           | 5        | 6377613.URPN.                               | USPAT       | 2004/09/15  |
|             |          |   |             | 15:55       |
| -           | 1        | 5777176.pn.                                 | USPAT;      | 2004/09/15  |
|             |          |   | US-PGPUB    | 17:06       |
| _           | 9        | ("2678998"   "4210871"   "4217586"          | USPAT       | 2004/09/15  |
|             |          | "4222115"   "4232392"   "4369520"           |             | 16:13       |
|             |          | "4383332"   "4397036"   "4481670").PN.      |             |             |
| _           | 93       | ·   | USPAT       | 2004/09/15  |
|             |          |   | 1           | 16:13       |
| _           | 8        | ("2955199"   "3339199"   "3348152"          | USPAT       | 2004/09/15  |
|             |          | "3462554"   "3663107"   "3755739"           |             | 16:19       |
|             |          | "4027247"   "4142155").PN.                  |             |             |
| _           | 11       | 4397036.URPN.                               | USPAT       | 2004/09/15  |
|             |          |   |             | 16:19       |
| _           | 12       | ("3934204"   "4373207"   "4397036"          | USPAT       | 2004/09/15  |
|             | ""       | "4752941"   "4805229"   "5109392"           | VSFAT       | 16:24       |
|             |          | "5203023"   "5461646"   "5465271"           |             | 10.47       |
|             |          | l · · · · · · · · · · · · · · · · · · ·     |             |             |
|             | _        | "5761252"   "5787112"   "5889826").PN.      | IICDAM      | 2004/00/15  |
| -           | 0        | 6148186.URPN.                               | USPAT       | 2004/09/15  |
|             | _        | /#2202500#   #250220##   #4045406#          | 1,,,,,,,,   | 16:24       |
| -           | 4        | 1   | USPAT       | 2004/09/15  |
|             |          | "4397036").PN.                              |             | 16:25       |
| -           | 36       | 4715048.URPN.                               | USPAT       | 2004/09/15  |
|             |          |   |             | 16:25       |
| -           | 3        | ("3727061"   "3931473"   "4967410").PN.     | USPAT       | 2004/09/15  |
|             | 1        |   |             | 16:49       |
| -           | 6        | 5050167.URPN.                               | USPAT       | 2004/09/15  |
|             | 1        |   |             | 16:49       |
| -           | 19       | ("5623485"   "5663990"   "5805567"          | USPAT       | 2004/09/15  |
|             |          | "5923650"   "5930230"   "5949814"           |             | 16:52       |
|             |          | "6141542"   "6154485"   "6173005"           |             |             |
|             |          | "6185266"   "6205127"   "6256290"           |             |             |
|             |          | "6289039"   "6317410"   "6317411"           |             |             |
|             |          | "6327299"   "6356528"   "6421327"           |             |             |
|             |          | "6424619").PN.                              |             |             |
| <del></del> | l        |   | <del></del> | <del></del> |

Search History 9/17/04 11:54:39 AM Page 2

| 1   |   |     |   |          |            |
|---|---|-----|---|----------|------------|
| 1   5,614,914,pn.   | _ | 0   | 6721339.URPN.                               | USPAT    | 2004/09/15 |
| 9   | - | 1   | 5,614,914.pn.                               | ľ        | 2004/09/15 |
| "5907541"   "5915207"   "6014372").PN.  | _ | 9   |   |          | 2004/09/15 |
| Section   Company   Comp  |   |     | •   |          | 17:38      |
| 21  | - | 9   | ·   | USPAT    | ·          |
| "5103459"   "5103490"   "5105691"   "5208756"   "5218367"   "5218367"   "5218367"   "5208756"   "5218367"   "5218367"   "520947"   "520947"   "520947"   "5209527"   "5209527"   "5209527"   "5345467"   "520947"   USPAT   2004/09/16  | _ | 21  |   | USPAT    | 2004/09/16 |
| "5218367"   "5218368"   "5228944"   "5269943"   "5260967"   "5260967"   "5260967"   "5260967"   "5260967"   "5260967"   "5260967"   "5260967"   "5365516").PN.  36 5619914.URPN.  4 ("5400037"   "5359870"   "5886988"   USPAT; 0004/09/16 08:14  2 ("5400037"   "5859870"   "5886988"   USPAT; 0004/09/16 08:58  2 375.clas. AND ((beamforming OR (beam ADJ forming)) SAME (multiplex\$ SAME demultiplex\$)  4 ("5400037"   "5859870"   "5886988"   USPAT; 0004/09/16 08:58  2 375.clas. AND ((beamforming OR (beam ADJ forming)) SAME (multiplex\$ SAME demultiplex\$)  4 ("5400037"   "5859870"   "5886988"   USPAT; 0004/09/16 08:58  2 375.clas. AND ((antenna SAME diversity SAME demultiplex\$)) US-PGPUB 09:34  5 (beamultiplex\$ SAME demultiplex\$ SAME USPAT; 0004/09/16 09:34  6 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:54  6 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:54  6 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:54  6 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:54  7 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:54  8 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamultiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamltiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamltiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamltiplex\$) (beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamforming) AND (multiplex\$ SAME USPAT; 0004/09/16 09:56  9 (beamforming) AND (multiplex\$   |   |     | ·   |          | 08:13      |
| "5260947"   "5260967"   "5260967"   "5260967"   "5345467"   "5345467"   PN.   |   |     | , ,   |          |            |
| - 145 370/334.ccls. USPAT; 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:14 2004/09/16 08:15 2004/09/16 2004/09/  |   |     | "5260943"   "5260967"   "5280472"           |          |            |
| 145   370/334.ccls.   USPAT;   2004/09/16   08:49   08:49   08:49   08:49   08:49   08:49   08:49   08:49   08:49   08:49   2004/09/16   08:58   2004/09/1  | _ | 36  | ·   | USPAT    | 2004/09/16 |
| 4   | _ | 145 | 370/334.ccls.                               | USPAT:   | 1          |
| "5963548").PN.   0 6549527.URPN.   0 6557140.cc1s. AND ((beamforming OR (beam ADJ USPAT; USPAT)   0 6557140.cc1s. AND ((beamforming OR (beam USPAT; USPAT)   0 6557140.cc1s. AND ((antenna SAME USPAT; USPAT)   0 6557140.cc1s. AND ((antenna SAME USPAT; USPAT)   0 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT; USPAT)   0 6 6 6557137.cc1s. AND ((multiplex\$ SAME USPAT)   0 6 6 6557137.cc1s.  |   |     |   | US-PGPUB | 08:49      |
| 2   375.clas. AND ((beamforming OR (beam ADJ forming)) SAME (multiplex\$ SAME uSPAT; USPAC; USPAT;  | _ | 4   | , i   | USPAT    | 1          |
| 2   375.clas. AND ((beamforming OR (beam ADJ   USPAT;   USPGUB   O9:33   O9:33   O9:33   O9:34   O9:34   O9:34   O9:34   O9:35   O9:35   O9:35   O9:36   O9:  | - | 0   | 6549527.URPN.                               | USPAT    |            |
| demultiplex\$)   20 375.clas. AND ((antenna SAME diversity SAME multiplex\$)   US-PGPUB   | - | 2   |   | · ·      | 2004/09/16 |
| SAME multiplex\$ SAME demultiplex\$)   US-PGPUB   09:54   |   |     | demultiplex\$))                             |          |            |
| -   26   375.clas. AND ((beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME demultiplex\$))   | - | 20  |   | ľ        | ·          |
| demultiplex\$)  | _ | 26  |   | i '      | · ·        |
| ADJ forming) AND (multiplex\$ SAME demultiplex\$)   |   |     | demultiplex\$))                             |          |            |
| - 0 455/140.ccls. AND ((beamforming OR (beam USPAT; 2004/09/16 demultiplex\$)) - 7 455/101.ccls. AND ((antenna SAME USPAT; 2004/09/16 multiplex\$) SAME demultiplex\$) USPAT; 2004/09/16 USPAT; 200   | _ | U   |   | ·        | 1          |
| ADJ forming)) AND (multiplex\$ SAME demultiplex\$)   09:54   09:54   09:54   09:54   09:54   09:54   09:54   09:54   09:54   09:54   09:54   09:56   09:57   09:  | _ | 0   | • • • •                                     | USPAT;   | 2004/09/16 |
| - 7 455/101.ccls. AND ((antenna SAME multiplex\$) 2004/09/16 multiplex\$ SAME demultiplex\$)) - 2 455/101.ccls. AND ((beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME demultiplex\$)) - 3 455/132.ccls. AND ((antenna SAME multiplex\$)) - 1 455/132.ccls. AND ((beamforming OR (beam ADJ forming)) AND (multiplex\$) US-PGPUB US-PGP   |   |     | ADJ forming)) AND (multiplex\$ SAME         | •        |            |
| - 2 455/101.ccls. AND ((beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME demultiplex\$)) - 3 455/132.ccls. AND ((antenna SAME multiplex\$ SAME demultiplex\$)) - 1 455/132.ccls. AND ((beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME demultiplex\$)) - 1 455/132.ccls. AND ((beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME USPAT; 2004/09/16 US-PGPUB 09:56 - 6 455/137.ccls. AND ((antenna SAME USPAT; 2004/09/16 US-PGPUB 09:57 - 1 455/140.ccls. AND ((antenna SAME USPAT; 2004/09/16 US-PGPUB 09:57 - 8 455/101.ccls. AND ((multiplex\$)) US-PGPUB 09:57 - 8 455/101.ccls. AND ((multiplex\$) US-PGPUB 09:57 - 14 455/132.ccls. AND ((multiplex\$) US-PGPUB 09:57 - 15 455/132.ccls. AND ((multiplex\$) US-PGPUB 09:57 - 16 455/132.ccls. AND ((multiplex\$) US-PGPUB 09:57 - 17 455/132.ccls. AND ((multiplex\$) US-PGPUB 09:57 - 18 455/137.ccls. AND ((multiplex\$) SAME USPAT; 2004/09/16 US-PGPUB 10:04 - 19 455/137.ccls. AND ((multiplex\$) SAME USPAT; 2004/09/16 US-PGPUB 10:07 - 10 455/137.ccls. AND ((multiplex\$) SAME USPAT; 2004/09/16 US-PGPUB 10:10 - 209 455/132.ccls. USPAT; 2004/09/16 US-PGPUB 10:11 - 209 455/132.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 292 455/137.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 292 455/137.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 292 455/137.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 293 455/101.ccls. AND ((combin\$ OR sum\$) SAME (USPAT; 2004/09/16 US-PGPUB 10:13 - 294 455/101.ccls. AND ((combin\$ OR sum\$) SAME (USPAT; 2004/09/16 USPAT; 20  | - | 7   | 455/101.ccls. AND ((antenna SAME            | · ·      | 1          |
| demultiplex\$)  | _ | 2   | _   |          | !          |
| 3   455/132.ccls. AND ((antenna SAME multiplex\$ SAME demultiplex\$)   USPAT;   2004/09/16   O9:56   O9:57   O  |   |     | _   | US-PGPUB | 09:56      |
| 1   455/132.ccls. AND ((beamforming OR (beam ADJ forming)) AND (multiplex\$ SAME demultiplex\$)   | - | 3   | 455/132.ccls. AND ((antenna SAME            | · ·      | i i        |
| demultiplex\$)   455/137.ccls. AND ((antenna SAME multiplex\$ SAME demultiplex\$)   US-PGPUB   US-PG   | _ | 1   | 455/132.ccls. AND ((beamforming OR (beam    | USPAT;   | 2004/09/16 |
| - 6 455/137.ccls. AND ((antenna SAME multiplex\$ SAME demultiplex\$) US-PGPUB 09:57 - 1 455/140.ccls. AND ((antenna SAME multiplex\$) US-PGPUB 09:57 - 2 455/101.ccls. AND ((antenna SAME multiplex\$) US-PGPUB 09:57 - 8 455/101.ccls. AND ((multiplex\$) US-PGPUB 09:57 - 8 455/101.ccls. AND ((multiplex\$) US-PGPUB 09:57 - 10 455/132.ccls. AND ((multiplex\$) SAME 09AT; 09A/09/16 09A/09/16 09AT; 09A/09/16 09A/09/16 09AT; 09A/09/16 0AT; 09A/09/16 0AT; 0AT; 0AT; 0AT; 0AT; 0AT; 0AT; 0AT;   |   |     | ,   | US-PGPUB | 09:56      |
| - 1 455/140.ccls. AND ((antenna SAME multiplex\$ SAME demultiplex\$)) - 8 455/101.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 demultiplex\$)) - 11 455/132.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 demultiplex\$)) - 6 455/137.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 demultiplex\$)) - 6 455/137.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 demultiplex\$)) - 3 455/140.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 demultiplex\$)) - 127 455/140.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 US-PGPUB 10:10 - 127 455/140.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 209 455/132.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 292 455/137.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 292 455/101.ccls. USPAT; 2004/09/16 US-PGPUB 10:53 - 342 455/101.ccls. AND ((combin\$ OR sum\$) SAME USPAT; 2004/09/16 US-PGPUB 11:33 - 7 455/101.ccls. AND ((combin\$ OR sum\$) SAME USPAT; 2004/09/16 US-PGPUB 11:38 - 5 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16   | _ | 6   | 455/137.ccls. AND ((antenna SAME            | · ·      | · ' '      |
| - 8 455/101.ccls. AND ((multiplex\$ SAME demultiplex\$)) - 11 455/132.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 US-PGPUB 10:04 - 12 455/137.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 US-PGPUB 10:07 - 13 455/140.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 US-PGPUB 10:10 - 127 455/140.ccls. AND ((multiplex\$ SAME USPAT; 2004/09/16 US-PGPUB 10:11 - 127 455/140.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 209 455/132.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 292 455/137.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 292 455/101.ccls. USPAT; 2004/09/16 US-PGPUB 10:13 - 342 455/101.ccls. AND ((combin\$ OR sum\$) SAME (SPAT; 2004/09/16 US-PGPUB 11:38 - 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16 US-PGPUB 11:38 - 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16   | _ | 1   | 455/140.ccls. AND ((antenna SAME            | USPAT;   | 2004/09/16 |
| - 11 455/132.ccls. AND ((multiplex\$ SAME demultiplex\$)) - 6 455/137.ccls. AND ((multiplex\$ SAME demultiplex\$)) - 7 6 455/137.ccls. AND ((multiplex\$ SAME demultiplex\$)) - 8 455/140.ccls. AND ((multiplex\$ SAME demultiplex\$)) - 9 127 455/140.ccls. AND ((multiplex\$ SAME demultiplex\$)) - 128 455/132.ccls. 455/132.ccls. 455/137.ccls. 455/137.  | _ | 8   | 455/101.ccls. AND ((multiplex\$ SAME        | USPAT;   | 2004/09/16 |
| demultiplex\$))  demultiplex\$)  demultiplex\$))  demultiplex\$)  demultiplex\$)  demultiplex\$)  demultiplex\$   | _ | 11  | 1   |          |            |
| demultiplex\$))   3   |   |     | <pre>demultiplex\$))</pre>                  | US-PGPUB | 10:07      |
| demultiplex\$)) - 127 455/140.ccls.  - 209 455/132.ccls.  - 292 455/137.ccls.  - 342 455/101.ccls.  97 455/101.ccls. AND ((combin\$ OR sum\$) SAME (split\$ OR separat\$)) - 5 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16 US-PGPUB 10:53 2004/09/16 US-PGPUB 11:38 2004/09/16 US-PGPUB 11:38 2004/09/16 US-PGPUB 11:38 2004/09/16  |   | _   | <pre>demultiplex\$))</pre>                  | US-PGPUB | 10:10      |
| US-PGPUB 10:13 US-PGPUB US-PGPUB 10:13 US-PGPUB 10:13 US-PGPUB 10:13 US-PGPUB 10:13 US-PGPUB 10:13 US-PGPUB 10:13 US-PGPUB 10:53 US-PGPUB 10:53 US-PGPUB 10:53 US-PGPUB 10:53 US-PGPUB 11:33 US-PGPUB 11:33 US-PGPUB 11:33 US-PGPUB 11:33 US-PGPUB 11:38  | _ | 3   | l • • • • • • • • • • • • • • • • • • •     | 1        | 10:11      |
| - 209 455/132.ccls. USPAT; 2004/09/16 - 292 455/137.ccls. USPAT; 2004/09/16 - 342 455/101.ccls. USPAT; 2004/09/16 - 97 455/101.ccls. AND ((combin\$ OR sum\$) SAME USPAT; 2004/09/16 (split\$ OR separat\$)) - 5 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16  | _ | 127 | 455/140.ccls.                               | · ·      |            |
| - 292 455/137.ccls. USPAT; 2004/09/16 US-PGPUB 10:53 USPAT; 2004/09/16 US-PGPUB 11:33 USPAT; 2004/09/16 US-PGPUB 11:33 USPAT; 2004/09/16 US-PGPUB 11:33 USPAT; 2004/09/16 US-PGPUB 11:38 USPAT; 2004/09/16 US-PGPUB 11:38 USPAT; 2004/09/16 US-PGPUB 11:38 US-PGPUB 11:38 US-PGPUB 11:38 US-PGPUB 11:38   | _ | 209 | 455/132.ccls.                               | USPAT;   | 2004/09/16 |
| - 342 455/101.ccls.  97 455/101.ccls. AND ((combin\$ OR sum\$) SAME USPAT; 2004/09/16 (split\$ OR separat\$))  5 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16  | - | 292 | 455/137.ccls.                               | USPAT;   | 2004/09/16 |
| - 97 455/101.ccls. AND ((combin\$ OR sum\$) SAME USPAT; 2004/09/16 (split\$ OR separat\$)) US-PGPUB 11:38 5 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16   | _ | 342 | 455/101.ccls.                               |          | 2004/09/16 |
| (split\$ OR separat\$))  5 455/140.ccls. AND (antenna SAME (combin\$ USPAT; 2004/09/16  | _ | 97  | 455/101.ccls. AND ((combin\$ OR sum\$) SAME |          |            |
|   |   |     | (split\$ OR separat\$))                     | US-PGPUB | 11:38      |
|   |   | 5   | · ·   | · ·      |            |

|             |             | 155/101 gala NND /  | HCDAM.             | 2004/00/16            |
|-------------|-------------|---|--------------------|-----------------------|
| _           | 66          | 455/101.ccls. AND (antenna SAME (combin\$<br>  OR sum\$) SAME (split\$ OR separat\$)) | USPAT;<br>US-PGPUB | 2004/09/16<br>11:48   |
|             | 110         |   | USPAT;             | 2004/09/16            |
|             |             | (split\$ OR separat\$))   | US-PGPUB           | 11:55                 |
| -           | 54          |   | USPAT;             | 2004/09/16            |
|             |             | (split\$ OR separat\$))   | US-PGPUB           | 12:00                 |
| -           | 18          |   | USPAT;             | 2004/09/16            |
|             | 3.0         | (split\$ OR separat\$))   | US-PGPUB           | 12:00                 |
| _           | 32          |   | USPAT;             | 2004/09/16            |
| _           | 60          | OR sum\$) SAME (split\$ OR separat\$)) 455/137.ccls. AND (antenna SAME (combin\$      | US-PGPUB<br>USPAT; | 12:05<br>  2004/09/16 |
|             | 30          | OR sum\$) SAME (split\$ OR separat\$))  | US-PGPUB           | 12:05                 |
| _           | 107         | · · · · · · · · · · · · · · · · · · ·   | USPAT              | 2004/09/16            |
|             |             | "4291410"   "4301530"   "4314393"   |                    | 13:58                 |
|             |             | "4324001"   "4327438"   "4338579"   |                    |                       |
|             |             | "4418425"   "4423519"   "4455651"   |                    |                       |
|             |             | "4481640"   "4517679"   "4550414"   |                    | l i                   |
|             |             | "4561089"   "4563774"   "4567588"   |                    | 1                     |
|             |             | "4587662"   "4601047"   "4606039"  <br>  "4630283"   "4641317"   "4647863"            |                    |                       |
|             |             | "4649549"   "4660164"   "4672658"   |                    |                       |
|             |             | "4675863"   "4688210"   "4691326"   |                    |                       |
|             |             | "4701904"   "4703474"   "4707839"   | 1                  |                       |
|             |             | "4724435"   "4736371"   "4754453"   |                    |                       |
|             |             | "4759034"   "4759078"   "4774715"   |                    | . [                   |
|             |             | "4797947"   "4804938"   "4807222"   |                    |                       |
|             |             | "4813057"   "4815106"   "4817089"   |                    |                       |
|             |             | "4837786"   "4864589"   "4866732"   |                    |                       |
|             |             | "4894842"   "4901307"   "4905221"  <br>  "4912705"   "4918689"   "4953197"            |                    |                       |
|             |             | "4972431"   "4984247"   "5005183"   |                    |                       |
|             |             | "5016255"   "5018165"   "5022024"   |                    |                       |
|             |             | "5022047"   "5029184"   "5056109"   |                    |                       |
|             |             | "5063560"   "5073899"   "5073900"   |                    |                       |
|             |             | "5081642"   "5093840"   "5097484"   |                    |                       |
|             |             | "5101501"   "5103459"   "5109390"   |                    |                       |
|             |             | "5119375"   "5121391"   "5146471"   |                    |                       |
|             |             | "5153598"   "5170412"   "5185610"  <br>  "5206882"   "5210771"   "5218618"            |                    |                       |
|             |             | "5206882"   "5210771"   "5218618"  <br>  "5224120"   "5228053"   "5228056"            |                    |                       |
|             |             | "5231646"   "5241690"   "5243622"   |                    |                       |
|             |             | "5257283"   "5265119"   "5267262"   |                    |                       |
|             |             | "5274665"   "5280472"   "5280537"   |                    |                       |
|             |             | "5289497"   "5291515"   "5299226"   |                    |                       |
|             |             | "5347535"   "5351269"   "5383219"   |                    |                       |
|             |             | "5392459"   "5402413"   "5410568"   |                    |                       |
|             |             | "5414728"   "5446756"   "5481570"  <br>  "5515378"   "5548819")   DN                  |                    |                       |
| _           | 9           | "5515378"   "5548819").PN.<br>  5859842.URPN.   | USPAT              | 2004/09/16            |
|             | <b>.</b>    | . 5055042. ONEN.  | USIAI              | 13:58                 |
| -           | 2           | ("4881273"   "4908839").PN.   | USPAT              | 2004/09/16            |
|             | _           | ,   |                    | 14:30                 |
| -           | 18          | 5249303.URPN.   | USPAT              | 2004/09/16            |
|             |             |   |                    | 14:30                 |
| -           | 14          |   | USPAT              | 2004/09/16            |
|             |             | "5079557"   "5130717"   "5289142"   |                    | 14:43                 |
|             |             | "5308918"   "5414433"   "5563610"   |                    |                       |
|             |             | "5659572"   "5745076"   "5856804"  <br>  "6345099"   "6353863").PN.                   |                    |                       |
| _           | 0           | ·   | USPAT              | 2004/09/16            |
|             |             |   |                    | 14:43                 |
| [ -         | 9           | ("4112430"   "4528656"   "5029184"  | USPAT              | 2004/09/16            |
|             |             | "5220557"   "5297171"   "5321850"   |                    | 14:45                 |
|             |             | "5357502"   "5367539"   "5379324").PN.  |                    |                       |
| -           | 42          | 5481570.URPN.   | USPAT              | 2004/09/16            |
|             | 20          | 270 alag AND (CDDE ADT  | HCDAM.             | 14:45                 |
| -           | 26          | 370.clas. AND (SPDT ADJ switch)   | USPAT;<br>US-PGPUB | 2004/09/16<br>15:49   |
| _           | 32          | 370.clas. AND (SPDT ADJ switch)   | USPAT;             | 2004/09/16            |
|             | J2          | T. T  | US-PGPUB           | 15:50                 |
| <del></del> | <del></del> | <u> </u>  | 4                  | ·                     |